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Recd. 6-19-72 in ONS-DI. 500Q copies, total edition printed 500 copies. 70 copies sent to author.
Printed on Req. No.OMS-2728-72. Index for: Title and Series. Filed with ENS-SERIES. Listed on
June 1972 Checklist. (Reprinted listed on Situation-Guide Card.)

TRENDS IN PRICE SPREADS FOR BEEF AND PORK

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Reprinted from
The Marketing and Transportation Situation
May 1972

TRENDS IN PRICE SPREADS FOR BEEF AND PORK

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ABSTRACT: Retail prices of beef and pork have increased about 30 percent since 1962; net farm values have increased less and have fluctuated more. Spreads between farm values and retail prices have increased more than one-third since 1962, but year-to-year increases have varied widely. Increases in beef and pork price spreads have accompanied similar increases in costs of labor and other marketing services. Seasonal and annual movements in price spreads reflect price adjustments to changing supplies and marketings of beef and pork, changes in consumer demand and incomes, and lags in the timing of price adjustments between various market levels.

KEY WORDS: Beef, pork, price-spreads, marketing costs.

Retail prices for beef increased steadily in 1971, from 100.2 cents per pound in the first quarter to 106.6 cents in the fourth quarter, then increased sharply to 114.4 cents in the first quarter of 1972. For pork, quarterly retail prices in 1971 averaged less than the previous year, ranging between 68.8 cents and 71.9 cents per pounds during the year. Then they increased to 79.0 cents in the first quarter of 1972. For both beef and pork, the average retail price has increased about one-third since 1962. Most of the increase has accompanied higher per capita consumption, particularly for beef, rising disposable incomes, and increasing costs for firms processing dressed meat and retailing foods (table 8).

This article examines trends and year-to-year changes since 1962 in selected costs of marketing and processing meats in relation to changing price spreads. It shows changes in the levels and seasonal patterns of farm-wholesale and wholesale-retail components of the price spreads for beef and pork. And it discusses problems in interpreting farm-wholesale and wholesale-retail spreads as they relate to individual stores, packers, processors and retailers.

Farm-retail price spreads for beef and pork represent the difference between the average retail price per pound and the farm value of the quantity of live animal equivalent to 1-pound of retail cuts. They measure gross marketing charges incurred between livestock producers and the retail meat counter. Spreads change when livestock prices and retail meat prices change by different amounts. Price spread changes are usually largest when livestock prices are falling or retail meat prices are rising.

Farm Value Per Retail Pound

Net farm values per retail pound of beef and pork have fluctuated in the past 10 years and have been more

Table 8.--Beef and pork retail prices and consumption, and personal disposable income, 1962-71

Year	Retail price		U.S. civilian consumption per capita (carcass weight)		Per capita personal disposable income
	Beef	Pork	Beef	Pork	
	Cents per pound		Pounds		Dollars
1962	81.7	58.8	88.9	63.5	2,066
1963	78.5	56.6	94.5	65.4	2,139
1964	76.5	55.9	99.9	65.4	2,284
1965	80.1	65.8	99.5	58.7	2,436
1966	82.4	74.0	104.2	58.1	2,605
1967	82.6	67.2	106.5	64.1	2,751
1968	86.6	67.4	109.7	66.2	2,946
1969	96.2	74.3	110.8	65.0	3,130
1970	98.6	78.0	113.7	66.4	3,358
1971	104.3	70.3	113.3	72.8	3,581

variable than retail prices (table 9). Changes in net farm values reflect trends in demand, year-to-year changes in supply, and trends in marketing costs. Annual and seasonal changes in supplies and prices of cattle differ from those for hogs. Since 1962 beef production has followed a steady upward trend, but net farm value per retail pound decreased from 55.2 cents in 1962 to 46.2 cents in 1964, then increased to 62.2 cents in 1969, and to 67.9 cents in 1971. Net farm value of beef increased each quarter during 1971 and in first quarter 1972 reached 73.7 cents per retail pound.

Since 1962, hog production and pork farm value have fluctuated widely, following a recurring 4 year up-and-down cycle. Net farm value for pork ranged between 26.8 cents in 1964 and 42.3 cents in 1969. During 1971, net farm value for pork averaged about 30 cents per pound in the first 2 quarters, increased to about 34-35 cents per pound in the last half of the year, and remained at 35 cents in the first quarter of 1972. Hog marketings vary seasonally within a year more than beef, causing wider seasonal fluctuations in pork net farm values.

Changes in farm values for livestock tend to reflect shortrun changes in supply and demand conditions, and usually lead changes at retail by several weeks. Retail beef and pork prices usually show less month-to-month variability than cattle and hog prices. While retailers special more meat cuts in some weeks of a month than others, especially when supplies are large, they attempt to follow relatively steady monthly pricing patterns, which result in shortrun changes in their margins.

Trends in Price Spreads and Marketing Costs

Farm-retail price spreads have increased 40 percent for beef and 34 percent for pork since 1962. Spreads have tended to reach plateaus with little or no change for several years, followed by shifts upward to another level several cents per pound higher.

This pattern is especially evident in the farm-retail price spread for pork. It ranged around 28 to 29 cents per retail pound from 1962 to 1965, fluctuated around 32 cents per pound during 1966-69, and then increased to around 38 cents per pound in 1970 and 1971 (table 10). For beef, the annual average was 26½ cents per pound in 1962, 28 to 30 cents during 1963-68, but then rose to 34 cents in 1969 and 36 cents in 1971.

Increases in price spreads for beef and pork have accompanied rising marketing costs since 1962. While the farm-retail spread for beef and pork increased about a third between 1962 and 1971, hourly earnings for meat packing and meat processing employees rose nearly 50 percent. Similarly, hourly earnings of food retailing employees rose 58 percent. Cost indexes of supplies and services bought by marketing firms were also up. Containers and packaging materials rose 18 percent; fuel, power and light rose 21 percent and rent, telephone, banking and other services rose 52 percent. Shipping and delivery costs have increased recently but not as markedly. Rail freight rates for dressed meats declined from 1962 to 1967 but then increased 20 percent by 1971. In addition, food retailers report that local delivery costs to retail stores have increased substantially in recent years.

Table 9.--Beef and Pork: Net farm value and commercial production, 1962-71

Year	Beef		Pork	
	Net farm value 1/	Commercial production	Net farm value 1/	Commercial production
	Cents 2/	Mil. lbs.	Cents 2/	Mil. lbs.
1962	55.2	14,931	30.1	11,229
1963	48.4	16,049	27.4	11,863
1964	46.2	18,037	26.8	12,019
1965	51.8	18,325	38.1	10,736
1966	52.3	19,493	42.2	11,130
1967	53.0	19,991	34.8	12,377
1968	56.7	20,662	34.5	12,867
1969	62.2	20,960	42.3	12,774
1970	61.5	21,472	39.5	13,248
1971	67.9	21,697	32.3	14,606

1/ Payment to farmer for quantity of live animal equivalent to 1-pound of retail cuts--2.28 pounds of choice beef and 1.97 pounds of hog--less an allowance for byproducts.
2/ Per retail pound

Table 10.--Beef and pork price spreads and selected marketing costs, 1962-71

Year	Farm-retail price spreads		Hourly earnings		
	Beef	Pork	Meat packing	Meat processing	Food retailing
	Cents	Cents	Dollars	Dollars	Dollars
1962	26.5	28.7	2.77	2.55	1.83
1963	30.1	29.2	2.82	2.64	1.90
1964	30.3	29.1	2.91	2.72	1.98
1965	28.3	27.7	2.99	2.78	2.06
1966	30.1	31.8	3.09	2.88	2.13
1967	29.6	32.4	3.24	3.03	2.23
1968	29.9	32.9	3.45	3.22	2.38
1969	34.0	32.0	3.66	3.45	2.54
1970	37.1	38.5	3.98	3.65	2.70
1971	36.4	38.0	4.17	3.92	2.91

Year	Prices of supplies and services bought by marketing firms			Rail freight rates for dressed meats
	Containers, packaging	Fuel, power and light	Rentals and services	
	Index 1967 = 100			
1962	96	100	84	120
1963	95	99	86	117
1964	96	98	88	113
1965	97	99	91	104
1966	99	99	95	100
1967	100	100	100	100
1968	100	99	106	103
1969	104	99	113	107
1970	108	108	120	117
1971	114	121	128	121 1/

1/ Preliminary

Price spreads fluctuate quarterly around the upward trend. Quarterly variations reflect, in part, the effects of price adjustments occasioned by seasonal changes in marketings of beef and pork and seasonal shifts in consumer demand. Additonal fluctuations are due to lags in the timing of price adjustments at various market levels. The combined effects of all factors—increasing costs, supply and demand shifts, and lags in price response—are reflected in price spreads. Their individual effects are difficult to separate and analyze.

Farm-Carcass and Carcass-Retail Spreads for Beef

There are two major components of the farm-retail spread for beef. They are the farm-carcass spread and carcass-retail spread (table 11). The farm-carcass spread covers aproximate costs of marketing and slaughtering operations, while the carcass-retail spread covers costs of breaking the carcass, transporting, local delivery, retail cutting and packaging, as well as retailing costs.

The annual average farm-carcass spread for beef has fluctuated narrowly between 6 and 7 cents per retail pound since 1962 except for last year when it rose to 7.7 cents. The carcass-retail spread for beef fluctuated around 23 cents per retail pound between 1963-68. However, as shown in figure 1 the carcass-retail spread rose sharply in 1969 to a higher plateau, reflecting changes in retailer pricing and rising marketing costs.

In the first quarter of 1972, the carcass retail spread for beef averaged 33.0 cents per retail pound, surpassing

Table 11.--Price spreads for beef, quarterly, 1962-72

Year	Carcass-retail spread				
	1st quarter	2nd quarter	3rd quarter	4th quarter	Annual average
	Cents per retail pound				
1962	19.5	20.7	19.2	19.9	19.9
1963	23.3	23.1	21.7	24.7	23.2
1964	24.0	23.5	21.2	24.1	23.2
1965	21.9	20.2	22.7	23.7	22.1
1966	21.4	24.6	24.2	25.5	23.9
1967	24.1	22.4	22.1	24.3	23.2
1968	23.0	23.4	23.4	24.0	23.5
1969	23.9	23.1	31.2	31.9	27.5
1970	29.5	30.0	29.6	32.4	30.3
1971	27.4	28.5	29.3	29.2	28.7
1972	33.0				
	Farm-carcass spread				
	Cents per retail pound				
1962	7.1	6.9	6.5	6.0	6.6
1963	6.5	7.2	6.8	7.2	6.9
1964	7.7	7.6	6.7	6.3	7.1
1965	6.4	6.1	6.4	6.0	6.2
1966	6.1	6.0	6.2	6.4	6.2
1967	6.3	6.4	6.3	6.5	6.4
1968	6.4	6.4	6.4	6.3	6.4
1969	6.4	6.1	6.9	6.3	6.5
1970	7.2	6.0	6.9	7.0	6.8
1971	7.9	8.1	7.5	7.5	7.7
1972	7.7				

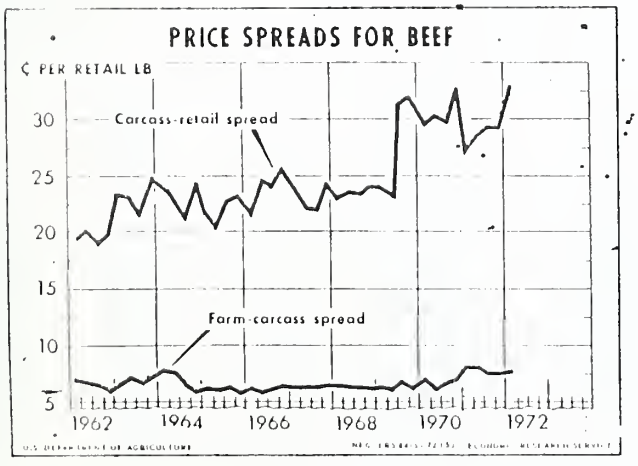

Figure 1

its previous high of 32.4 cents in the last quarter of 1970.

Farm-Wholesale and Wholesale-Retail Spread for Pork

The farm-retail spread for pork is divided into the farm-wholesale spread and the wholesale-retail spread.

The farm-wholesale spread for pork covers approximate costs for marketing and slaughtering hogs, curing, smoking and processing the pork products, and shipping to major consuming centers. Since 1962, the farm-wholesale spread for pork has increased about 4 cents per retail pound (fig. 2 and table 12).

The wholesale-retail spread covers costs of local delivery to retail stores, and retailing, including some cutting and packaging. The wholesale-retail spread for pork rose nearly 6 cents per retail pound between 1962 and 1970, but sharp increases in 1966 and again in 1970

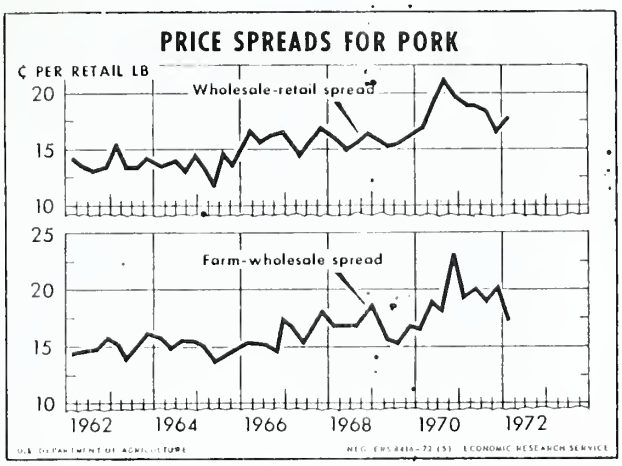

Figure 2

accounted for nearly all the rise. In the first quarter of 1972, the wholesale-retail spread for pork averaged 17.3 cents per retail pound, lower than any quarter since early in 1970.

Interpreting Price Spreads

For pork, the farm-retail spread divides about equally into the farm-wholesale, and wholesale-retail components. For beef, the farm-carcass spread is about one-fifth of the total farm-retail spread. These proportions diverge because of differences in market levels where retailers make the bulk of their beef and pork purchases. Most purchases are made from the packer for beef, but at a further processing level for pork.

Thus, the farm-wholesale spread for pork can be interpreted as representing an approximate

Table 12.--Price spreads for pork, quarterly, 1962-72

Year	Wholesale-retail spread				
	1st quarter	2nd quarter	3rd quarter	4th quarter	Annual average
	Cents per retail pound				
1962	14.2	13.6	13.1	13.3	13.6
1963	15.2	13.5	13.4	14.1	14.0
1964	13.6	13.9	13.0	14.3	13.7
1965	13.1	11.7	14.5	13.6	13.2
1966	16.3	15.6	16.3	16.5	16.1
1967	15.7	14.3	16.0	16.8	15.7
1968	16.0	15.1	15.6	16.4	15.7
1969	15.7	15.4	15.9	16.1	15.8
1970	17.1	19.4	21.0	19.8	19.3
1971	19.0	18.9	18.5	16.5	18.2
1972	17.7				
	Farm-wholesale spread				
	Cents per retail pound				
1962	14.6	14.9	14.9	15.7	15.1
1963	15.4	14.2	14.9	16.1	15.2
1964	15.9	14.8	15.5	15.5	15.4
1965	15.0	13.8	14.4	14.7	14.5
1966	15.4	15.3	14.7	17.3	15.7
1967	16.7	15.5	16.7	18.0	16.7
1968	16.7	17.0	16.7	18.3	17.2
1969	17.0	15.9	15.3	16.7	16.2
1970	16.6	18.7	18.3	23.1	19.2
1971	19.6	20.0	19.1	20.2	19.8
1972	17.3				

packer-processor margin, and the wholesale-retail spread as representing delivery cost and retailers' margin.

Similarly, the farm-carcass spread for beef can be interpreted as representing the approximate packer margin, and the carcass-to-retail spread as representing shipping, warehousing, and delivery cost along with the retailers' in-store margin. However, retailers report their in-store margin is about one-third less than the carcass-retail spread, mainly because the spread includes transportation costs for dressed beef shipped from principal cattle feeding and meat packing centers to consuming centers. In addition, many retailers buy closely-trimmed primal and subprimal cuts as well as dressed carcass beef, at correspondingly higher prices.

Retailers report that they have been buying an increasing proportion of their beef as subprimals and fabricated cuts in recent years. Also, there has been considerable shifting of beef slaughter operations toward the West and Southwest. The longer distance shipments to consuming centers, coupled with additional labor costs for breaking and cutting the beef before purchase by retailers, have increased the prices paid to packers by retailers for beef and narrowed their in-store margins. These factors contribute to changes in packers' spreads and the spreads for shipping and retailing dressed beef that are not fully depicted in the widening carcass-retail spread. Additional studies are being made to measure the effects of these changes on the beef price spread.